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ABSTRACT

New standards in the state of Virginia are being instituted to require that professional development programs for pre-service principals include experience with technology. This study was designed to identify relevant topics that should be part of that experience. Surveys and interviews were used to gather information from in-service principals and principal interns regarding policy issues, technology leadership issues, and personal computer use. Based on survey results, a technology class is proposed that addresses each topic through discussions and context-based projects designed to meet the individual needs and interests of class participants. The survey form, template letters to principals and sample course syllabus are appended. Contains 12 references. (Author/AEF)

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DEVELOPING TECHNOLOGY TRAINING FOR PRINCIPALS

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Abstract: New standards in the state of Virginia are being instituted to require that professional development programs for pre-service principals include experience with technology. This study was designed to identify relevant topics that should be part of that experience. Surveys and interviews were used to gather information from in-service principals and principal interns regarding policy issues, technology leadership issues, and personal computer use. Based on survey results we propose a technology class that addresses each topic through discussions and context-based projects designed to meet the individual needs and interests of class participants.

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INTRODUCTION

New standards in the state of Virginia are being instituted to require that professional development programs for principals include experience with instructional technology. This requirement, however, does not currently include specific competencies or provide recommendations for what that experience should include. While there are state Technology Standards for Instructional Personnel which are applicable to all licensed school personnel in the state, these standards are designed primarily for teachers and are intended to match state technology standards for students. The state's higher education institutions are left with the task of identifying the elements necessary to provide beneficial instructional technology experiences for principals as they create technology courses designed to meet the new standard.

Our task was to identify the important elements that will provide principals with a beneficial and comprehensive instructional technology experience, that will not only allow them to meet the new state requirement, but will also help them become more efficient and effective in fulfilling their daily roles as professionals.

LITERATURE REVIEW

In a 1991 article, Telem commented that,

> The issue of IT in educational administration has so far been neglected. It has received partial-and only sporadic inconsistent attention-in the literature, at scientific meetings, and among special interest groups in professional associations in education (1991, p. 595).

With the implementation of Virginia's new requirement as support, the issue of instructional technology for administrators must be given attention in educational research and curriculum development.

In a rapidly changing information and communications age, it is essential that principals, as administrative and instructional leaders in their schools become role models (Rockman & Sloan, 1993) as technology users and supporters for students, teachers, and support staff.

> Successful principals will need increased knowledge to correspond to the growth of the school's responsibilities and, even more important, they will need new skills for acquiring that knowledge and applying it to the process of education. (Zellner & Erlandson, 1997, p. 46)

In his 1995 article, *The Wired Principal*, Donatucci emphasizes that a principal who utilizes "the potential of new technology can become more proactive in approaching administrative challenges" (p. 14). In an outline of a day in the life of a technology-using principal we are shown several tasks for which a principal uses technology. These uses include spreadsheets for tracking budget information; e-mail and network resources for correspondence and information sharing with parents, school personnel and students; databases for accessing student and staff information; and a variety of other applications and on-line resources.

Technology training that provides basic skills for performing these applications will increase the productivity potential of principals, however, there is also the need for

training to go beyond teaching these basic skills. Bruder (1990) states that the principal plays a vital role in the implementation of technology. Training should help principals identify the "technology needs" (p. 15) of other school personnel and students. In addition, legal issues (Ricciardi, 1997) related to technology use may also be a relevant area of exploration in technology training for principals. These legal issues could include practices for adopting acceptable use policies, handling copyright issues related to Internet and other electronic resources, and a variety of other legal and moral issues related to the use of technology in schools.

OUR PREMISE

Drawing from the above sources, our experience teaching instructional technology courses for in-service and pre-service teachers and administrators, and based on observations and interactions with principals and other administrators we have identified three areas that may be appropriate topics for inclusion in a technology course for principals. These are:

1. Policy issues related to technology (standards of learning for students, technology requirements for instructional personnel, copyright issues and acceptable use policies, budgeting and equitable distribution of technology issues, computer labs versus computers in the classroom, etc.)
2. Becoming a technology leader for teachers and students with a basic understanding of instructional applications and the potential of technology to enhance instruction, general knowledge of software and hardware specifications, and support for administrative uses of technology for teachers and other school personnel.

3. The exploration of basic computer applications, including word-processing, desktop publishing, spreadsheets, databases, e-mail, and other Internet resources.

METHODOLOGY

Description of General Approach

To strengthen our conclusions regarding these three areas, research was conducted using both quantitative and qualitative methods. Surveys were used to collect data from in-service principals, and interviews and discussion questions—both formal and informal —were used with in-service principals and principal interns.

Through the discussions and survey we hoped to confirm support for the three general areas, as well as acquire more specific information related to the needs principals have in each of the areas. For example, we wanted to know:

- What specific application programs do principals use (word-processor, spreadsheet, database, Internet)?
- How often do they need to use these programs (daily, weekly, monthly, never)?
- For what do they use the programs (writing memos, setting up budgets, accessing student attendance records, maintaining correspondence with parents or other school personnel)?
- How relevant is it for principals to participate in activities to support instructional and administrative applications of technology by teachers, students, and support staff?

- How important is it for principals to know about and deal with various technology-related policies and issues?

We began by looking for an instrument that might be used or adapted to meet our needs. Our search efforts revealed several surveys for principals and school administrators, but most of these included demographic information looking at numbers of computers in schools rather than technology skills and training needs of principals. Of these studies three offered some similarities to our areas of interest (Beach & Vacca, 1985; Beaver, 1991; Brooks, 1997), however, they did not meet our specific needs. For a discussion of the purpose, methodology, findings, and recommendations of these three studies see Schoeny, Heaton, and Washington (1999).

In order to address our specific interests, we developed our own instrument (see Appendix A). We developed and pilot tested a survey instrument with a group of principal interns enrolled in a technology class for administrators during Spring Semester 1998. Minor adjustments were made to the instrument at that time to shorten the survey and to clarify directions and the wording of some items.

Discussion and interview questions to be used with in-service principals and principal interns were developed to gain additional information regarding the issues, roles, and personal skills that are relevant to the principal's position.

Selection of Participants

A state database including schools, principals, and addresses was downloaded via the Internet and used to identify 141 schools in Albemarle and surrounding counties near the University of Virginia. This information was organized into groups representing elementary, middle school, high school, and other (vocational/technical school). We

selected seventy-five principals for the study using a stratified random sample. The stratified sample was used in order to include the appropriate percentage of principals from each group. Table 1 indicates the number of schools selected in each category as well as the survey return rate within each group.

Table 1. Stratified Sample of Schools Used in Principal Survey and Return Rates.

	# Selected	# Returned	% of Total
Elementary	47	35	47 %
Middle	14	12	16 %
High	12	10	13 %
Other	2	1	1 %
TOTAL	75	58	77 %

Each member of the population was assigned a number within one of the four categories, and a table of random numbers was used to select participants within each group.

Discussion participants were selected from students enrolled in the technology class for principals. These participants supplied information through written journal responses on topics such as attitudes about personal computer use and roles as instructional and technology leaders. Two principals were also selected from among those identified by a local, county technology coordinator as supporters of technology.

Data Collection

Survey packets were mailed to the 75 randomly selected participants. Packets included a letter of request for participation that explained the purpose of the project, an informed consent agreement[1], the survey, and a return envelope.

[1] An Informed Consent Agreement explaining the role of the participant and the participants' rights in the study is required by the Institutional Review Board for the protection of human subjects in research studies conducted at the University of Virginia.

Dillman's (1978) Total Design Method (TDM) was used as a model for data collection. TDM provides an outline for implementing effective mail (or phone) survey research, including attention to administrative detail and response behavior. Following this model, we developed a mailing schedule that included four mailings (see Appendix B for letters). The first mailing provided participants with the complete survey packet and set a three-week response deadline. The three subsequent mailings were sent to those who had not yet responded. The second mailing was a letter sent one week later to remind participants to complete the survey. Mailing three was sent the following week to remind participants of the approaching deadline. The fourth mailing, which was sent at the deadline, was a new survey packet. Return results based on this system are included in Table 2.

Table 2. Summary of Mailing Contents and Return Results for Each of the four mailings.

Mailing	**Contents**	**# Returned**
1	Cover letter Informed Consent Agreement Survey Return envelop	16
2	Letter as reminder	19
3	Letter as reminder	14
4	Complete survey packet	9

Qualitative data was gathered through two tape-recorded interviews with principals, from margin comments included on the mailed surveys, and typed journal responses to discussion questions raised in the principal interns' class.

Data Recording & Management

Since all participants agreed to participate as anonymous contributors, surveys, notes and transcripts were coded to maintain confidentiality. All surveys were assigned a code indicating their group and assigned number within the group. For example, 3.12 would represent a middle school principal assigned the number 12. The codes were used for administrative purposes only. An Excel spreadsheet was created to track survey returns as they were received. This information allowed us to send mailings two, three, and four to those who had yet to return their materials.

Principal interns responded to discussion questions in writing and were asked to exclude their names or other identifying information. Interviews with principals were tape-recorded and transcripts were coded. Records matching the codes to the corresponding respondents were kept secure throughout the study.

Data Analysis

SPSS was used for the analysis of survey data. The Presentation of Findings and Discussion section includes descriptive statistics (means) of responses for each item. Data is not included based on the stratified sample because no significant differences were found in responses from the four groups. Qualitative data was included in the analysis as support material.

PRESENTATION OF FINDINGS AND DISCUSSION

Principals' Ranking of Relevant Topics to Include in a Technology Course

We asked principals to rank, in order of importance to their role as a principal, the relevance of the following topics: (a) learning about K-12 technology policy issues; (b)

learning about ways to become a technology leader in your school; and (c) learning technology skills for personal, professional use. The data we gathered from this question includes responses from 51 of the 56 respondents. Five responses to this question were coded as missing data either because the respondent failed to answer the question, or answered the question incorrectly. We labeled the responses as "policy," "leader," and "personal," respectively.

Sixty eight percent of respondents ranked personal use as the most important issue, followed by 28% of respondents ranking ways of becoming a technology leader as most important. The least amount of respondents, 4%, ranked being aware of policy issues as most important. Figure 1 illustrates the results of principals' ranking of the topics. This is consistent with responses we gathered from our discussions with the principal interns. One intern commented that, "I want to stay up-to-date with the changes that are developing in technology. I want to become better versed in using different programs other than the Internet and word processing." Another intern commented that using technology "is rather intimidating, so much information and technology is coming out that you think you will never understand it, let alone keep up with it." Some of the principal interns commented in informal discussion that it was helpful to learn how to use the technology tools within the context of addressing immediate administrative needs at their respective school sites. These findings and comments suggest the importance of providing students with realistic, context-based applications and samples of the uses of a variety of applications. Course projects should be flexible and allow students to explore topics related to their individual needs and interests.

Figure 1. Results of principals' ranking of relevant topics to be included in a technology course for principals.

Principals' Rating of Relevant Policy Issues

Section one of the survey asked principals to rate, on a scale from one (not relevant) to five (critical), the relevance of various policy issues as they related to their responsibilities as a principal. Principals rated all 14 issues addressed in the policy section of the survey as "relevant", "very relevant", or "critical". "Participating in the development of your school's Internet Acceptable Use Policy (AUP)" yielded the lowest mean at 3.30 and "Establishing a working relationship with the technology coordinator assigned to your school" had the highest mean at 4.41. Policy issues introduced by the principal interns included having to balance funding for technology needs among the programs and departments in the school. Other prevalent issues included addressing funding for school infrastructure needs, as well as making technology policy decisions for the school related to factors such as school board mandates, parental pressures, and federal and state policies.

While principals rated personal technology use as most important to their role as a principal, 61% of the respondents rated being aware of policy issues as most important. To reflect these results we have designed a course that addresses the technology policy issues that were prevalent among principals' responses. Table 3 provides a summary of principals' ratings for relevant policy issues.

Table 3. Principals' Rating of Relevant Policy Issues

Principals' Rating of Relevant Policy Issues	
Developing Acceptable Use Policy	3.31
Being aware of equity issues	3.41
Participating in development of technology plan	3.66
Making decisions regarding placement of computers	3.85
Disseminating the Virginia Standards of Learning	3.98
Allocating funds for hardware	4.00
Being aware of copyright issues	4.03
Allocating funds for software	4.05
Being aware of Technology Standards for Instructional Personnel	4.07
Implementing an Acceptable Use Policy	4.10
Providing on-site tech support	4.25
Supporting the implementation of a technology plan	4.30
Allocating funds for technology training	4.35
Establishing a relationship with the technology coordinator	4.40

Principals' Rating of Relevant Technology Leadership Issues

Section two of the survey asked principals to rate, on a scale from one (not relevant) to five (critical), the relevance of various technology leadership issues as they related to their responsibilities as a principal. Principals rated all but one of the 12 issues addressed in the leadership section of the survey as "relevant", "very relevant", or "critical". "Encouraging teacher participation in professional technology-related organizations" yielded the lowest mean at 2.87 and "Encouraging teachers' instructional use of technology" had the highest mean at 4.48.

Learning about technology leadership proved to be a relevant topic with 57% of respondents ranking it first or second in order of importance to their role as a principal. Discussions with principal interns supported the importance of technology leadership. One intern stated that

> As an administrator, I feel that it is my responsibility to make sure that teachers have staff development and training to effectively use technology in the classroom. It is my responsibility to stay abreast of the changes that occur, to have the most updated equipment, hardware and software, that our resources will allow, and personally be able to use technology so that my staff would know that I have a vested interest and that it is a priority.

Another intern defined being a technology leader as someone who is "a user, a facilitator, but most of all a teacher. It is necessary to be a model for technology use if you are a school leader." Conversely, another intern felt that it was not necessary to be a proficient user of technology to be an effective technology leader. He responded by saying, "I do

not think you have to know everything to be considered a leader, but you should be attempting to gain as much knowledge and experience as possible in the field. You should be able to identify some goals, as well as keep up with current trends in technology." This sentiment was also expressed by one of the principals we interviewed who said that "if the principal doesn't have a great knowledge of [technology], I think there should be someone on the staff that does, that I could have confidence in. For example if I hire a reading teacher I certainly hope they know more about reading than I do." Table 4 indicates Mean ratings of a variety of technology leadership issues.

Table 4. Principals' Rating of Relevant Technology Leadership Issues

Principals' Rating of Relevant Technology Leadership Issues	
Encouraging teachers' participation in technology organizations	2.87
Supporting maintenance of school Web site	3.46
Being aware of hardware requirements for administrative uses	3.82
Being aware of software requirements for instructional use	3.87
Being aware of software requirements for administrative use	3.87
Being aware of hardware requirements for instructional use	3.89
Being a technology leader	3.96
Encouraging teacher use of technology for administrative purposes	4.03
Recognizing the potential of technology to enhance instruction	4.41
Using a computer	4.44
Encouraging teacher participation in technology training	4.48
Encouraging teachers' instructional use of technology	4.48

These results indicate the importance of continuing discussions and providing examples to students on how they can fill the role of technology leader in their school. Discussion topics would range from types of professional development opportunities that can be created for teachers to potential uses of a school Web page.

Frequency of Principals' Personal Technology Use

We asked principals to indicate the frequency with which they currently use word processing, spreadsheets, databases, and presentation software. We also asked them to indicate the frequency with which they use e-mail and access the World Wide Web. Eighty-five percent of respondents reported using e-mail daily and 82% reported using word processing software daily. A small number reported using spreadsheets, databases, and presentation software daily. Figure 2 illustrates the frequency with which principals reported using various software.

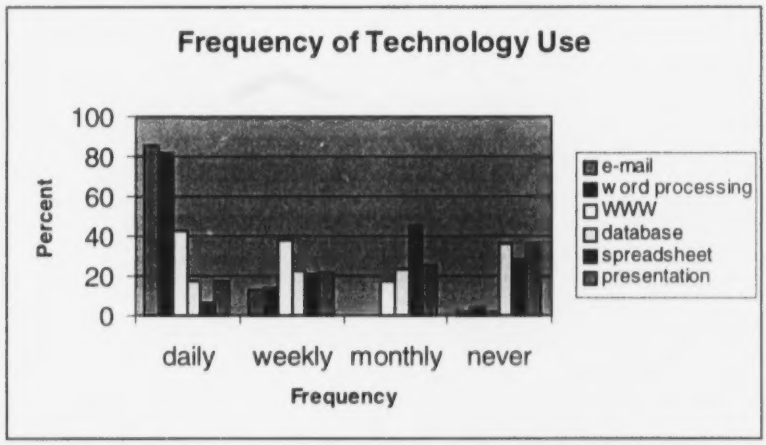

Figure 2. Frequency of principals' current use of various technologies.

Overview of Principals' Use of Various Technology Tools

In section three of our survey we asked principals to identify ways they currently use word processing, spreadsheets, databases, presentation software, e-mail, and the World Wide Web (WWW). While most of the respondents reported using all of the tools, the amount of use varied greatly from person to person. This section also indicated the least used software applications were spreadsheets, databases, and presentation tools. Respondents' comments indicated that the limited use may be attributed to lack of knowledge about how to use the tool. In accordance with the data we gathered on the frequency of use, we found that respondents indicated the greatest number of uses for word processing, e-mail and the World Wide Web.

Results indicate that if principals were more knowledgeable about what they could do with the tools, they might use them more. This lends support to the nature of our course in which we propose to include the presentation of technology use in context-based situations. Figures 3 - 8 indicate the variety of uses for each application.

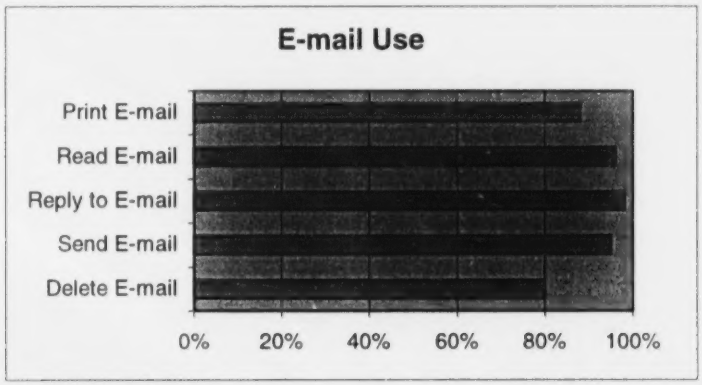

Figure 3. Percentage of principals reporting use of various e-mail features.

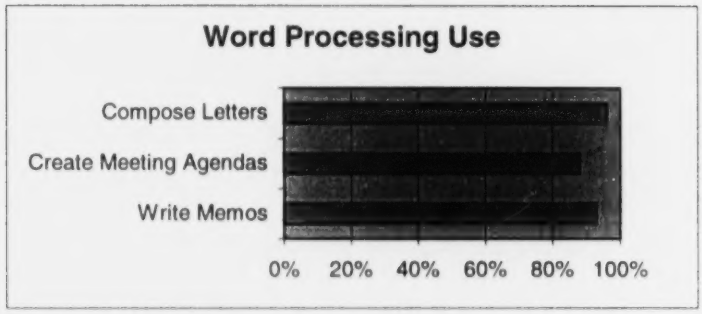

Figure 4. Percentage of principals reporting use of word processing to perform various tasks.

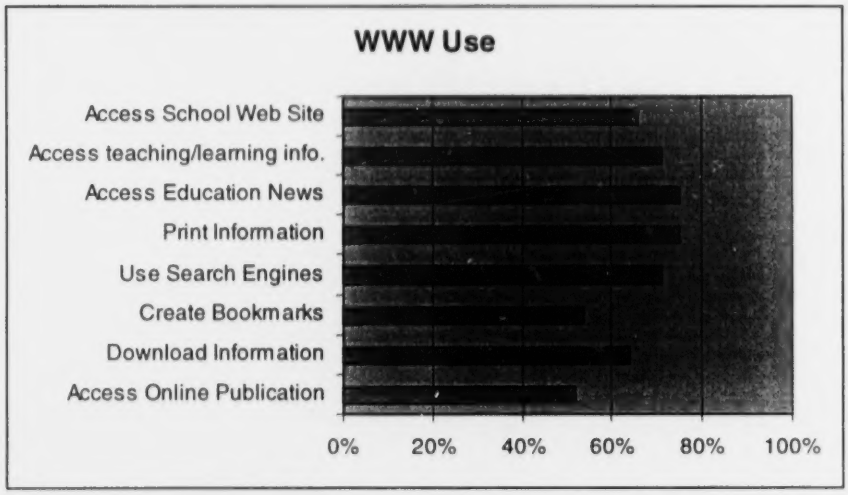

Figure 5. Percentage of principals who reported using various features of the WWW.

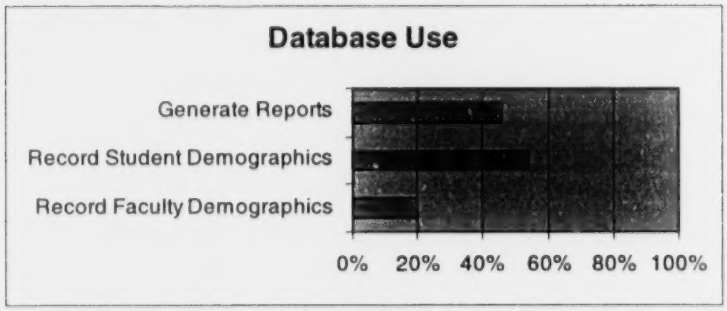

Figure 6. Percentage of principals who reported using databases to perform various tasks.

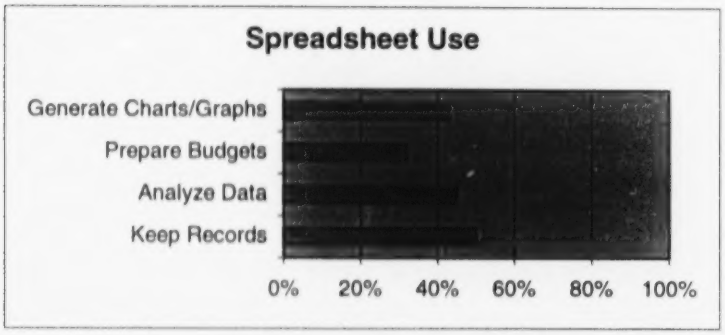

Figure 7. Percentage of principals who reported using spreadsheets to perform various tasks.

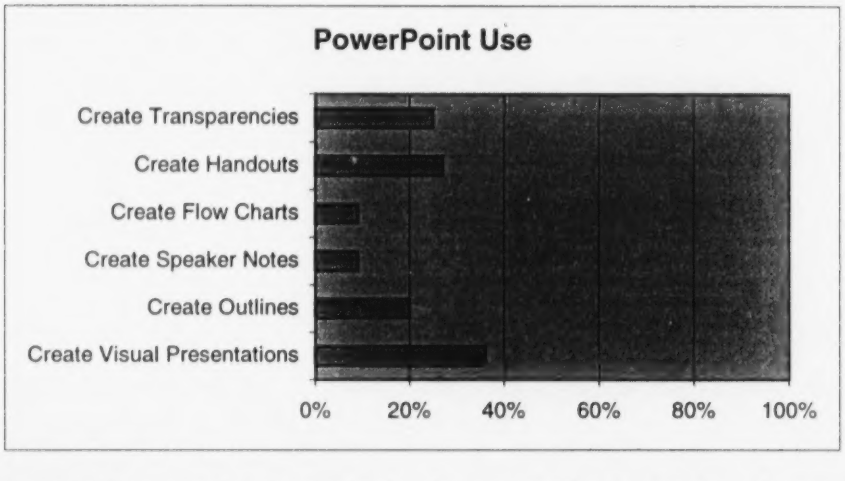

Figure 8. Percentage of principals who reported using various features of PowerPoint.

General Information

In addition to relevancy and technology use questions we asked principals to tell us whether or not they had a computer in their office and if they had ever participated in technology training for professional development. Fifty-five of the 56 respondents reported having a computer in their office (one response was coded as missing data because the respondent failed to answer the question). Fifty-two of the 56 respondents reported having participated in technology-related professional development. Because of

the similarity of the responses we did not do a factor analysis of responses based on these criteria.

Since 93% of respondents indicated having participated in some type of technology-related professional development, we found the low levels of use for some applications interesting. Unfortunately, we do not have information describing the content of their technology training.

Unsolicited Written Comments from Surveys

We found it interesting that some respondents wrote additional comments in the margins of the survey and felt that, as unsolicited responses, they were valuable data. One respondent attached a note to her survey that said, "This is an exciting and sometimes frustrating development. I'm learning to love computers. Now just finding time." Besides this note, we found additional comments in the margins of all three sections of the survey.

A few comments were recorded in section one of the survey, in which we asked questions regarding the relevance of various policy issues related to technology. In response to the question about allocating funds for hardware and software purchases one respondent felt that this was relevant, but wrote, "[This is] done by the division." In response to the question about allocating funds for technology training, someone wrote, "With PAY!" The same person added, "Give me time and pay for me to learn. Don't expect me to pay and pick up technology on my own. Most of my teachers feel the same way."

A few of the respondents wrote additional comments in section two of the survey where we queried principals about various issues related to being a technology leader.

The first question in this section asks principals to rate the relevance of being a technology leader in their role as a principal. One respondent wrote, "Someone else is [the] technology leader. I strongly support, encourage it--make it happen." Another wrote, "others are more knowledgeable." These comments came from principals who reported moderate use of the various technologies. This suggests that these principals equate technological knowledge and ability with being a technology leader.

The greatest number of comments were recorded in section three of the survey where respondents were asked to identify ways they currently use word processing, spreadsheets, databases, presentation software, e-mail, and the World Wide Web (WWW). In reference to the frequency with which they access the WWW one respondent wrote, "I would daily if it were on my computer." This indicates that while there is interest in using Internet resources, some principals may not have adequate access.

In reference to using presentation software one respondent left the question blank and wrote, "I would like to use this;" and in response to using spreadsheets and databases, a respondent wrote, "Don't know how--Yet." Another respondent left the database question unanswered and wrote, "working toward" in response to her current use. Regarding spreadsheet use, someone wrote, "Don't use but I should." These comments add additional support for the interest in technology and the need for additional training.

CONCLUSION

"Whether we want it or not, computer technology seems destined to change drastically many of the ways we administer and teach in public schools." (Guthrie,

Garms, & Pierce, 1988, p. 297). This statement, written ten years ago, is still relevant today.

As leaders of K-12 educational institutions, principals need technology skills and information appropriate to their status as professionals. If higher education institutions in the state are to create courses that provide meaningful instructional technology experiences for principals, then they have a responsibility to identify what those technology experiences should be. Principals need technology skills not only to meet the technology requirements of the state, but also to help them meet the challenges schools face in a changing technological society. The development of a technology course for pre-service principals will not only move principals toward meeting the standards required by the state, but it will also help them become more aware of issues faced by teachers and students in meeting their own respective technology standards.

As evidenced by the survey results, personal skills and policy and technology leadership issues are relevant topics that should be addressed in a technology class for pre-service principals. While the majority of respondents ranked personal skills as most relevant, we believe that all three topics should be explored through discussions and context-based projects designed to meet the individual needs and interests of class participants. Using this framework, we propose a technology course for pre-service principals that includes discussions of relevant technology issues, readings of current educational technology literature, participation in a class e-mail listserv, exploration of issues related to technology planning, and the completion of a technology-based project. A sample syllabus is included in Appendix C.

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APPENDIX A

Technology Survey for Principals

Technology Survey for Principals

Please rate the following, from 1-3, in order of their importance to you as a principal. One (1) is most important, three (3) is least important.

_____ Learning about K-12 technology policy issues

_____ Learning about ways to become a technology leader in your school

_____ Learning technology skills for personal, professional use

Please answer Yes or No to the following questions.

_____ Do you have a computer in your office?

_____ Have you participated in technology training for professional development?

SECTION I

Please rate the following, on a scale from 1 to 5, according to their relevance as they relate to your responsibilities as a principal

1=not relevant; 2=somewhat relevant; 3=relevant; 4=very relevant; 5=critical

How relevant is…

1. Knowing the technology requirements for instructional personnel in the Commonwealth of Virginia?	1 2 3 4 5
2. Disseminating the Virginia 5th and 8th grade technology SOLs to faculty?	1 2 3 4 5
3. Participating in the development of your school/school district technology plan?	1 2 3 4 5
4. Supporting the implementation of your school/school district technology plan?	1 2 3 4 5
5. Establishing a working relationship with the technology coordinator assigned to your school?	1 2 3 4 5
6. Assigning responsibility for on-site technology support for faculty and staff?	1 2 3 4 5
7. Allocating funds for:	
• Purchasing Hardware (computers, scanners, digital cameras, etc)	1 2 3 4 5
• Purchasing Software (CD-ROM, other educational programs)	1 2 3 4 5
• Faculty/Staff technology training	1 2 3 4 5
8. Making decisions regarding the placement of computers in your school?	1 2 3 4 5

9. Participating in the development of your school's Internet Acceptable Use Policy (AUP)?	1	2	3	4	5
10. Supporting the implementation of your school's Internet Acceptable Use Policy?	1	2	3	4	5
11. Being aware of copyright issues related to copying text/images from the Internet or CD-ROM and/or citing references from the Internet?	1	2	3	4	5
12. Being aware of problems related to equal access to technology in schools across the Commonwealth of Virginia?	1	2	3	4	5

SECTION II

1. Being a technology leader in your school?	1	2	3	4	5
2. Using a computer?	1	2	3	4	5
3. Encouraging teacher use of technology for administrative purposes? (letters home to parents, gradebooks)	1	2	3	4	5
4. Being aware of hardware requirements needed to support administrative uses of technology? (computers, printers)	1	2	3	4	5
5. Being aware of software requirements needed to support administrative uses of technology? (word processing, etc.)	1	2	3	4	5
6. Encouraging teachers' instructional use of technology?	1	2	3	4	5
7. Being aware of hardware requirements needed to support instructional uses of technology? (computer, scanner, digital camera)	1	2	3	4	5
8. Being aware of software requirements needed to support instructional uses of technology? (CD-ROM encyclopedia, educational software)	1	2	3	4	5
9. Encouraging teacher participation in technology training?	1	2	3	4	5
10. Supporting the maintenance of a school web page?	1	2	3	4	5
11. Encouraging teacher participation in professional technology-related organizations? (Virginia Society for Technology in Education)	1	2	3	4	5
12. Recognizing the potential of technology to enhance instruction?	1	2	3	4	5

SECTION III

Please circle the response that best describes your current use of computers.

1. I use word processing software	Daily	Weekly	Monthly	Never
2. I use spreadsheet software	Daily	Weekly	Monthly	Never
3. I use database software	Daily	Weekly	Monthly	Never
4. I use presentation software	Daily	Weekly	Monthly	Never
5. I use e-mail	Daily	Weekly	Monthly	Never
6. I access the World Wide Web	Daily	Weekly	Monthly	Never

Please check all that apply.

7. I use word processing to...

___Compose letters
___Create newsletters
___Write reports
___Take notes
___Write memos
___Create meeting agendas
___Keep a professional journal
___Other (Describe)
_____

8. I use spreadsheets to...

___Prepare budgets
___Analyze data
___Keep records
___ Generate charts/graphs
___ Other (Describe)
_____

9. I use databases for...

___Generating reports
___Searching existing databases
___Student demographics
___Faculty demographics
___Other (Describe)
_____

10. I use presentation software to...

___Create transparencies
___Create visual presentations
___Create self-timed slide shows
___Create speakers notes
___Create handouts
___Create outlines
___Create flow charts
___Other (Describe)
_____

11. I use e-mail in the following way(s)...

___Send e-mail
___Send e-mail attachments
___Read e-mail
___Reply to e-mail
___Forward e-mail
___Print e-mail
___Delete e-mail
___Create e-mail address book
___Create folders for e-mail
___Other (Describe)
_____

12. I use the World Wide Web in the following ways...

___Access my school web site
___Access on-line publications
___Access education news
___Access education policy info.
___Access professional organizations
___Access teaching/learning info
___Create bookmarks
___Use search engines
___Download information
___Print information
___Other (Describe)
_____

APPENDIX B

Letters to Principals

November 2, 1998

«Principal_Name»
«School_Name_»
«Add_1»
«Add_2»
«Add_3»

Dear «Salutation»:

The State Department of Education is considering recommendations for higher education institutions to include experience with technology in their administrator preparation programs. To provide meaningful technology training experiences for administrators, it is essential to acquire feedback about the needs, interests, and skills of practicing administrators.

The enclosed survey is intended to request information about relevant policy issues, your role as a technology leader, and personal computer use. This information may help to identify important issues and skills that need to be included in technology courses for administrators.

You were randomly selected from 140 public school principals in 16 school districts in the Commonwealth of Virginia to receive this survey, and your input is very important to obtaining an accurate representation of relevant issues and personal computer use. Decisions about course content and requirements for administrators will be determined from this survey.

You may be assured of complete confidentiality. An informed consent form is included to provide a brief description of the study and your role and rights as a participant. Please sign and return one copy; the other copy is for your records. To ensure confidentiality, the informed consent form will be separated from your survey upon receipt.

The survey has in identification number for mailing purposes only. This allows us to check your number off of the mailing list when your survey is returned. Your personal data results will remain completely confidential.

The survey has three parts and will probably take 10-15 minutes to complete. Clearly indicate your responses on the survey. **Please return the completed survey and signed consent from in the enclosed envelope by Monday, November 16.**

If you have any questions about this survey contact Lisa Heaton (lah8v@virginia.edu) or Lisa Washington (law7x@virginia.edu) at (804) 978-2991. Thank you in advance for taking time out of your busy schedule to complete the survey.

Sincerely,

Lisa A. Heaton
Leadership, Foundations, & Policy
Curry School of Education

Lisa A. Washington
Leadership, Foundations, & Policy
Curry School of Education

November 9, 1998

«Principal_Name»
«School_Name_»
«Add_1»
«Add_2»
«Add_3»

Dear «Salutation»:

Last week we sent you a survey related to technology issues and personal computer use. This information may help to identify important issues and skills that need to be included in technology courses for administrators.

If you have already completed and returned the survey to us, please accept our sincere thanks. If not, **please return the completed survey by Monday, November 16**. Your input is very important to this study. You are helping to provide an accurate representation of relevant technology issues and personal computer use.

If you did not receive the survey, please contact Lisa A. Heaton (lah8v@virginia.edu) or Lisa A. Washington (law7x@virginia.edu) at (804) 978-2991 and another one will be mailed to you.

Thank you for your participation.

Sincerely,

Lisa A. Heaton
Leadership, Foundations, & Policy
Curry School of Education

Lisa A. Washington
Leadership, Foundations, & Policy
Curry School of Education

November 16, 1998

«Principal_Name»
«School_Name_»
«Add_1»
«Add_2»
«Add_3»

Dear «Salutation»:

We recently sent you a survey related to technology issues and personal computer use. You were randomly selected from 140 public school principals in 16 school districts in the Commonwealth of Virginia to receive this survey, and your input is very important to obtaining an accurate representation of relevant issues and personal computer use. Decisions about course content and requirements for administrators will be determined from this survey.

Your personal data results will remain completely confidential. The survey has in identification number for mailing purposes only. An informed consent form was included to provide a brief description of the study and your role and rights as a participant. Please sign and return one copy; the other copy is for your records. To ensure confidentiality, the informed consent form will be separated from your survey upon receipt.

We are aware that this is an extremely busy time of year for you, but we hope you will find it possible to complete the survey. If you have already completed and returned the survey to us, please accept our sincere thanks. If not, **please return the completed survey by Wednesday, November 18**.

If you did not receive the survey, please contact Lisa A. Heaton (lah8v@virginia.edu) or Lisa A. Washington (law7x@virginia.edu) at (804) 978-2991 and another one will be mailed to you.

Thank you for your participation.

Sincerely,

Lisa A. Heaton
Leadership, Foundations, & Policy
Curry School of Education

Lisa A. Washington
Leadership, Foundations, & Policy
Curry School of Education

November 23, 1998

«Principal_Name»
«School_Name_»
«Add_1»
«Add_2»
«Add_3»

Dear «Salutation»:

Your input is very important to obtaining an accurate representation of principals' views regarding technology issues and personal computer use. Our records indicate that we have not received your completed survey regarding technology training for principals.

We have enclosed another survey and informed consent form for your convenience. The informed consent form is included to provide a brief description of the study and your role and rights as a participant. Please sign and return one copy; the other copy is for your records. To ensure confidentiality, the informed consent form will be separated from your survey upon receipt.

If you have already returned the survey, please accept our sincere thanks. If not, your prompt response is greatly appreciated.

If you have any questions about this survey contact Lisa Heaton (lah8v@virginia.edu) or Lisa Washington (law7x@virginia.edu) at (804) 978-2991. Thank you in advance for taking time out of your busy schedule to complete the survey.

Sincerely,

Lisa A. Heaton
Leadership, Foundations, & Policy
Curry School of Education

Lisa A. Washington
Leadership, Foundations, & Policy
Curry School of Education

APPENDIX C

Sample Course Syllabus

Technology Training for Pre-Service Principals
Sample Syllabus

Course Description

This course is designed to provide pre-service principals with an overview of current policy issues related to technology and exposure to ideas about various ways of becoming a technology leader. Personal technology skills will be developed through the completion of context-based class activities.

Course Objectives

Upon completion of this class, participants will be:

- aware of major issues related to technology planning for schools and school districts.
- familiar with pertinent issues and the state of technology in Virginia.
- familiar with the Technology Standards of Learning for students and the Technology Standards for Instructional Personnel.
- able to identify methods for addressing the technology standards for students and teachers.
- aware of best practices in developing programs for in-service teacher professional development in the use of technology.
- aware of copyright laws and acceptable use policy and their implications in education.
- familiar with the dynamics of the relationship between the principal and the technology coordinator.
- aware of potential inequities that exist across and within school districts in the state.
- aware of hardware and software requirements needed to support instructional and administrative applications of technology.
- able to use appropriate technology applications for the completion of administrative tasks.

Class Format

The class will include the following elements:

Readings
Readings will be assigned throughout the semester as prompts for class discussions. These will be handed out in class or posted on the class web page.

Class discussion
Class discussions will cover a variety of issues.

E-mail listserv
Participation in the class listserv discussions is required.

Demonstrations
Educational software will be demonstrated and uses of the software will be discussed. Practical applications of administrative tools will also be demonstrated.

Computer (Lab) time
Hands-on computer time will be included for students to work on final projects.

Course Requirements

Attendance and Participation
Since a large portion of the course is based on discussion and hands-on experiences, attendance and class participation are essential.

Listserv
It is important that you take time to consider the issues and readings discussed in the class. You will be asked to participate in a class e-mail listserv. This forum will be used to continue discussion and debate on current issues in educational technology. Some discussions will be assigned topics based on key issues raised in class. Feel free to introduce additional topics to the discussion.

Technology Plan Review
This exercise is designed to allow participants to explore issues in technology planning and the integration of technology in schools. This includes planning for both administrative and instructional needs of students, teachers and support staff. State guidelines for technology planning will be used as the basis for plan evaluation. Plans should include: a timeline with short-term and long-term initiatives, vision and mission statements, outline of uses for technology, current status of technology within the school or district, statement of needs, clearly stated goals and objectives, a strategic action plan that outlines funding needs and potential sources, an evaluation plan, and a training program for instructional personnel.

Course Project
Students will explore application(s) through the completion of a class project.

1. Identify a topic that can be explored through the use of technology
2. Outline specific needs related to the topic
3. Select appropriate application(s)
4. Use the application(s) to develop a product

For example:

1. A principal needs to track standardized test performance over a two-year period
2. The principal would like to be able to compare the performance of students across subject areas and by gender
3. The principal will use the Internet to locate and download test scores for his school. This information will be imported into a spreadsheet program.
4. The principal will use the data to generate graphs, which can be used to address the areas of interest.